

Identification of Factors Affecting Household Waste Management for SDGs Achievements in North Sumatra

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ABSTRACT

Management Program is often proclaimed rarely done among the people, it becomes a question mark what is the cause and origin. Based on the problematic, research was carried out in the North Surabaya area. Where this region, most people still throw trash in place that should not be. The purpose of this study is to determine the pattern of waste management environment of the community. What is the pattern of society in waste management as well as factors that affect the community in waste sorting. The method in this research is descriptive qualitative. Based on this research, factors that encourage people to sort the waste are busyness factor, level of education, age housewives as a principal dividing owned along with the number of children, and the lack of media information obtained.

Keywords: Management, mother, Factor, waste

I. INTRODUCTION

The General Assembly of the United Nations (UN) has a program to address poverty, inequality and climate change. The Program initiated with the state government on a cross-country UN resolution is sustainable development or the Sustainable Development Goals (SDGs). One of the goals of sustainable development or the Sustainable Development Goals that sustainable city, as well as a healthy and prosperous life.

Healthy and prosperous life is a fundamental objective for the community both in rural and urban areas. It affects the health, hygiene and lifestyle community. Where if health and a clean lifestyle is not done, it can cause contagious disease that could destabilize society and economy. One of the key factors in making healthy lifestyle in the society is the management of household waste or household cesspool

By growth rate of development and population growth, the rate of increase in the amount of household waste is also growing and increasingly uncontrollable. If the growth rate of the garbage that is not balanced with good management, it will cause endless problems and impacts - negative impacts that harm humans themselves.

Surabaya is one of the most populous city in Indonesia. With a large population and with the rate of growth is growing, Surabaya is in separable with more and more rubbish. With the existence of these problems in the city of Surabaya, the necessary studies to determine how household waste management in communities Surabaya to improve the management system is problematic and cause a negative impact. Studies in this study had the sense of a systematic search of the household waste management issues from an observation to get the handling.

II. RESEARCH METHODS

A. Location Research

This study will be conducted in the District of Bulak and District Krembangan. Bulak subdistrict consists 4 villages with 132 RT. While the District Krembangan consists of five villages with 381 RT. (Central Bureau of Statistics, 2018)

B. Data Collection

Collecting data in this study is to find information or information that is primary or secondary. Where in this research method used is questionnaire method EHRA by respondents or informants from local residents in the districts of Bulak and sub Krembangan.

In EHRA study, to determine the minimum sample size can be used "Slovin formula" or "Formula Krejcie-Morgan". This formula is used to determine an estimate of the proportion of the population using the sample proportion. (Christine Sijbesma, 2014)

Slovin formula:

$$n = \frac{N}{1 + Ne^2}$$

Exp:

n = number of samples required.

N = Number of population

e = sampling error is allowed.

The minimum withdrawal amount required respondent sample, using the formula Slovin:

$$n = \frac{169866}{1 + 169866 \cdot 0,05^2} = 399$$

With a degree of confidence in the study is 95%, then the error rate of 5%. So as to determine the minimum usable sample margin of error of 5%. By using the formula Slovin and with a margin of error of 5%, showed the number of samples required as many as 399.

Primary data in this study obtained from direct interviews with respondents or informants by using a questionnaire study EHRA waste parts, documentation and data from field observations relating to the implementation of waste management and the availability of garbage tank in the District of Bulak and District Krembangan, Surabaya. While the secondary data in this study come from the archives that can be obtained from the data of BPS Surabaya, or books from previous research that can support researchers in analyzing the problems studied.

III. DATA ANALYSIS

Analysis conducted by review role of the village as well as the community in waste management. Starting from the prior study came to the location study performed prior to the earlier research that the reference, which qualitative data were analyzed interactively into saturation values.

Furthermore, the data obtained from the survey results, data is entered in the EHRA application, which further data is processed on the Microsoft Excel application. In Microsoft Excel data is processed in

accordance with the grouping of EHRA studies. Furthermore, the data that has been observed and processed both from the field and from data entry, can be done presentation of data and conclusion.

IV. DISCUSSION

In this case of the Waste Management in District Tembalang will be discussed using the following phenomena:

1. Distribution or Household Characteristics

In this study, household characteristics is indispensable to know the social-demographic information in the district and sub-district Bulak Krembangan. Variables used included the status of the respondent, the respondent age, number of children, education of respondents and the ownership status of residence. Variable dwelling ownership status is used to determine the potential of citizen participation in the development and management of solid waste or garbage in the environment where staying. Those who occupy residences which are not owned, they are suspected to have a low sense of belonging. They tend to have a sense of caring and a low environmental hygiene. Low sense of concern which further reduces the interest or sense of interest in waste management further.

The level of education and information media determines the level of knowledge about retribution housewives and household waste management. The higher the education level, the greater the media information obtained 66% of the respondents tiered higher education can be said that high school / vocational school and university, while the other 36% can be said to be below the standard of education in Indonesia. Housewives who have higher levels of education and the media informed, the higher the conscious attitude housewife in retribution and waste management. Higher levels of education increase broader thinking patterns and insightful. Broader thinking patterns that trigger awareness of housewives in improving waste management in an efficient,

Table 1. Respondents Information District of Bulak and Krembangan

Information		Total	
		n	%
Respondents Age Group	<= 20 years	1	0.2
	21-25 years	22	5.5
	26-30 years	40	10
	31-35 years	64	16
	36-40 years	65	16.2
	41-45 years	61	15.2
	> 45 years	147	36.8
B2. What is the status of the home that you occupy today?	One's own	291	72.8
	Official residence	5	1.2
	lease	10	2.5
	Contract	31	7.8
	Belongs to the parents	63	15.8
B3. What is your last education?	No formal schooling	7	1.8
	SD	63	15.8
	SMP	66	16.5
	High School	158	39.5
	SMK	31	7.8
	University / Academy	75	18.8

2. Household Waste Management

In a study conducted through interviews and observations by respondents obtained information about some of the issues related to the characteristics of respondents in waste management are as follows:

1. How to landfills
2. Practice sorting of waste
3. Containers landfills
4. The frequency and timeliness of transporting waste

Table 2. Observations How Garbage Disposal

	Observation	Total	
		n	%
EO.2.1 Observe, how to manage waste at home?	Discarded and buried in a pit dug	1	0.2
	Dumped in the pit and burned	2	0.5
	Collected waste basket dlm permanent	393	98.2
	Discharged into the river / lake / sea	2	0.5
	Just ignore it	2	0.5
EO.2.2 Observe , whether around the yard clean of trash?	Yes	360	90
	Not	40	10
EO.2.3 Observe, if it appears that the garbage be sorted / separated	Yes	43	10.8
	Not	357	89.2

Garbage disposal containers including one identifikator in the management of household waste. Residents whose homes are not available in front of the trash tends to be inadequate in waste management. Dikernjang waste collected trash or plastic bag in the house, tend to be directly burned, thrown into the river or beach nearby.

From the garbage disposal container then performed management, which in its management, some residents of the waste they haislkan submitted to the informal collectors for recycling and unisex partially or almost all the waste produced is collected or disposed of to the polls.

Here the role of the janitor and the officer who recycle an important role in people's behavior towards waste management. Timeliness of officers in transporting waste to influence society or housewives in the final waste management. Officers transporting waste that often comes irregularly causing garbage heap garbage dibak front of the house every citizen, it can encourage citizens to take action to improperly final disposal, whether it is burned, thrown into the river or kesaluran. As well as officers of the delay in transporting waste could also trigger some negative impact on the surrounding environment. Regularity waste hauler officer also affected by the amount and regularity of garbage collection fees paid by residents. From observations.

Table 3. Observations Frequency of Transportation and Waste Management

Observation		Total	
		n	%
3.1 Waste management	Yes, adequate	400	100
3.2 Frequency of transporting waste	Yes, adequate	5	100
3.3 Timeliness of transporting waste	Yes, right time	5	100

3.4 Waste is local	unprocessed	357	89.2
	Yes, processed	43	10.8

In the observations that have been made in the environment litter condition data obtained RT / RW region of the District of Bulak and District Krembangan. In Surabaya city indexes both districts are categorized as the slums. And it also triggered in the case of household waste management.

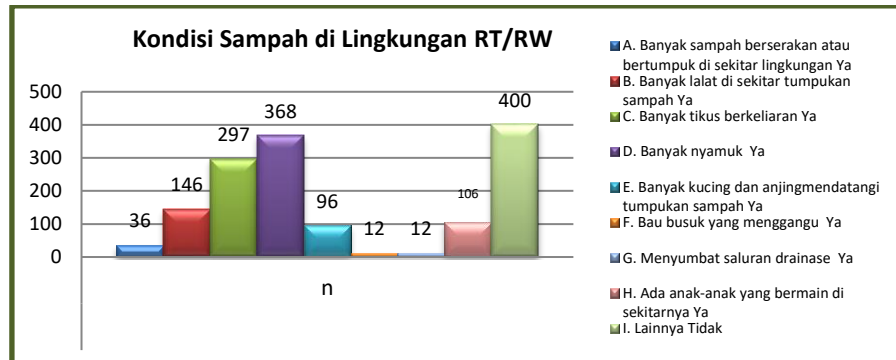


Figure 1. : Environmental Waste conditions RT / RW District of Bulak and Krembangan

3. Sorting Trash

From the results of observations made through the trash of society, driven by factors of media or knowledge they can from pkk association and it is only visible in some areas only. Although some people also said that the plastic waste sorting bottles that they are their own initiative. Plastic bins which are then sold to collectors. The community activities also indicate that economic factors also encourage the community in waste management.

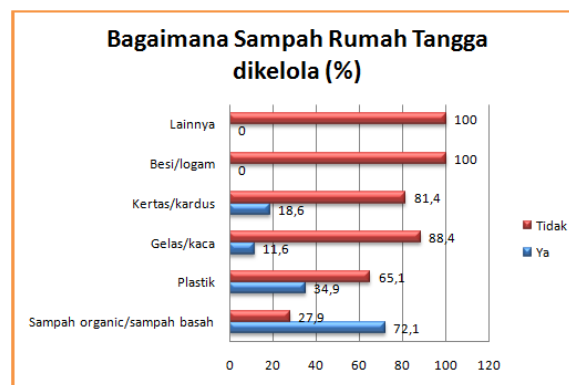


Figure 2. Practice Sorting Trash

Table 3. Compost Treatment Observations

		Total	
		n	%
EO.2.5 Observe, if there is a place to make compost?	Yes	2	0.5
	Not	398	99.5
EO.2.6 Observe, Is there a compost can be used?	Yes	2	100

4. Supporting and Inhibiting Factors

Household waste management by community encouraged by several contributing factors. Among house ownership or occupancy status, level of education, ability to pay janitors, and regularity of waste transporter officer.

While in segregation, people actually understand there are benefits to be gained from household waste they produce. However, the lack of media in the processing and the processing of information in making the community more indifferent to the landfill without sorting. That matter, which inhibits the resulting waste management.

Table 4.Obstacles and Supporting Sorting Trash

No.	Obstacle factor	Supporting factors
1	Lack of time	Environmental awareness
2	Inefficient (takes longer)	Economics (increase revenue)
3	Dirty and disgusted	greening
4	Behavioral habits	Education
5	scavengers	Media and Tools

Factor - the supporting factors are also shown some positive aspects of the litter itself. From an economic point of garbage can generate additional revenue if treated properly and orderly. From the things taken for granted and waste can be composted one of them. The trash can be recycled cardboard recycled paper and so forth.

V. CONCLUSION

Results of a study conducted in the districts of Bulak and sub Krembangan shows people still rarely sorting or recycling waste to reduce the reduction of the impact of waste in the future. From the results of observations conducted found that:

1. Management of the litter observed, people still tend to throw garbage directly to TPS via intermediary janitor or a garbage man. From the area around the houses are still found garbage strewn around.
2. Household waste generated removed first place garbage or plastic bags, which then dumped in garbage bins in front of the house, trash bins contained in subsequently transported relevant officers. While most people who sort the waste. Sorting garbage they had, then sold kepengepul or artisan rags.
3. The role of the department cleanliness or village towards waste management is still lacking, merely transporting the garbage to the TPS. And only part of the territory by the trash facilities for free.

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